FIG. 1

	Subfield	SF1	SF 2	SF 3	SF 4	SF 5	S F6	SF 7	SF 8	SF 9	SF 10
	Weight of Gradation level	1	2	4	8	12	16	28	44	60	80
Gradation table for gradation level "165"		1	1	1	1	0.75	1	0.75	1	1	0
Emission pattern information for gradation level "165"	S1(175)	1	1	1	1	1	1	1	1	1	0
	S2(175)	1	1	1	1	1	1	1	1	1	0
	S3(147)	1	1	1	1	1	1	0	1	1	0
	S4(163)	1	1	1	1	0	1	1	1	1	0

Values in parentheses are gradation levels shown by emission pattern information itself.

FIG. 2

Gradation level to be displayed	Subfield									
	1	2	3	4	5	6	7	8	9	10
	1	2	4	8	12	16	28	44	60	80
0	0	0	0	0	0	0	0	0	0	0
1	1	0	0	0	0	0	0	0	0	0
2	1	0.5	0	0	0	0	0	0	0	0
3	1	1	0	0	0	0	0	0	0	0
4	1	1	0.25	0	0	0	0	0	0	0
5	1	1	0.5	0	0	0	0	0	0	0
6	1	1	0.75	0	0	0	0	0	0	0
7	1	1	1	0	0	0	0	0	0	0
8	1	1	0.75	0.25	0	0	0	0	0	0
9	1	1	1	0.25	0	0	0	0	0	0
10	1	1	0.75	0.5	0	0	0	0	0	0
11	1	1	1	0.5	0	0	0	0	0	0
12	1	1	0.75	0.75	0	0	0	0	0	0
13	1	1	1	0.75	0	0	0	0	0	0
14	1	1	0.75	1	0	0	0	0	0	0
15	1	1	1	1	0	0	0	0	0	0
16	1	1	1	0.75	0.25	0	0	0	0	0
17	1	1	0.75	1	0.25	0	0	0	0	0
18	1	1	1	1	0.25	0	0	0	0	0
19	1	1	1	0.75	0.5	0	0	0	0	0
20	1	1	0.75	1	0.5	0	0	0	0	0
21	1	1	1	1	0.5	0	0	0	0	0
22	1	1	1	0.75	0.75	0	0	0	0	0
23	1	1	0.75	1	0.75	0	0	0	0	0
24	1	1	1	1	0.75	0	0	0	0	0
25	1	1	1	0.75	1	0	0	0	0	0
26	1	1	0.75	1	1	0	0	0	0	0
27	1	1	1	1	1	0	0	0	0	0
28	1	1	1	1	0.75	0.25	0	0	0	0
29	1	1	1	0.75	1	0.25	0	0	0	0

FIG. 3

Gradation level to be displayed	Subfield									
	1	2	3	4	5	6	7	8	9	10
	1	2	4	8	12	16	28	44	60	80
30	1	1	0.75	1	1	0.25	0	0	0	0
31	1	1	1	1	1	0.25	0	0	0	0
32	1	1	1	1	0.75	0.5	0	0	0	0
33	1	1	1	0.75	1	0.5	0	0	0	0
34	1	1	0.75	1	1	0.5	0	0	0	0
35	1	1	1	1	1	0.5	0	0	0	0
36	1	1	1	1	0.75	0.75	0	0	0	0
37	1	1	1	0.75	1	0.75	0	0	0	0
38	1	1	0.75	1	1	0.75	0	0	0	0
39	1	1	1	1	1	0.75	0	0	0	0
40	1	1	1	1	0.75	1	0	0	0	0
41	1	1	1	0.75	1	1	0	0	0	0
42	1	1	0.75	1	1	1	0	0	0	0
43	1	1	1	1	1	1	0	0	0	0
44	1	1	1	0.75	1	0.75	0.25	0	0	0
45	1	1	0.75	1	1	0.75	0.25	0	0	0
46	1	1	1	1	1	0.75	0.25	0	0	0
47	1	1	1	1	0.75	1	0.25	0	0	0
48	1	1	1	0.75	1	1	0.25	0	0	0
49	1	1	0.75	1	1	1	0.25	0	0	0
50	1	1	1	1	1	1	0.25	0	0	0
51	1	1	1	0.75	1	0.75	0.5	0	0	0
52	1	1	0.75	1	1	0.75	0.5	0	0	0
53	1	1	1	1	1	0.75	0.5	0	0	0
54	1	1	1	1	0.75	1	0.5	0	0	0
55	1	1	1	0.75	1	1	0.5	0	0	0
56	1	1	0.75	1	1	1	0.5	0	0	0
57	1	1	1	1	1	1	0.5	0	0	0
58	1	1	1	0.75	1	0.75	0.75	0	0	0
59	1	1	0.75	1	1	0.75	0.75	0	0	0

FIG. 4

Gradation level to be displayed	Subfield									
	1	2	3	4	5	6	7	8	9	10
	1	2	4	8	12	16	28	44	60	80
60	1	1	1	1	1	0.75	0.75	0	0	0
61	1	1	1	1	0.75	1	0.75	0	0	0
62	1	1	1	0.75	1	1	0.75	0	0	0
63	1	1	0.75	1	1	1	0.75	0	0	0
64	1	1	1	1	1	1	0.75	0	0	0
65	1	1	1	0.75	1	0.75	1	0	0	0
66	1	1	0.75	1	1	0.75	1	0	0	0
67	1	1	1	1	1	0.75	1	0	0	0
68	1	1	1	1	0.75	1	1	0	0	0
69	1	1	1	0.75	1	1	1	0	0	0
70	1	1	0.75	1	1	1	1	0	0	0
71	1	1	1	1	1	1	1	0	0	0
72	1	1	1	1	0.75	1	0.75	0.25	0	0
73	1	1	1	0.75	1	1	0.75	0.25	0	0
74	1	1	0.75	1	1	1	0.75	0.25	0	0
75	1	1	1	1	1	1	0.75	0.25	0	0
76	1	1	1	0.75	1	0.75	1	0.25	0	0
77	1	1	0.75	1	1	0.75	1	0.25	0	0
78	1	1	1	1	1	0.75	1	0.25	0	0
79	1	1	1	1	0.75	1	1	0.25	0	0
80	1	1	1	0.75	1	1	1	0.25	0	0
81	1	1	0.75	1	1	1	1	0.25	0	0
82	1	1	1	1	1	1	1	0.25	0	0
83	1	1	1	1	0.75	1	0.75	0.5	0	0
84	1	1	1	0.75	1	1	0.75	0.5	0	0
85	1	1	0.75	1	1	1	0.75	0.5	0	0
86	1	1	1	1	1	1	0.75	0.5	0	0
87	1	1	1	0.75	1	0.75	1	0.5	0	0
88	1	1	0.75	1	1	0.75	1	0.5	0	0
89	1	1	1	1	1	0.75	1	0.5	0	0

FIG. 5

Gradation level to be displayed	Subfield									
	1	2	3	4	5	6	7	8	9	10
	1	2	4	8	12	16	28	44	60	80
90	1	1	1	1	0.75	1	1	0.5	0	0
91	1	1	1	0.75	1	1	1	0.5	0	0
92	1	1	0.75	1	1	1	1	0.5	0	0
93	1	1	1	1	1	1	1	0.5	0	0
94	1	1	1	1	0.75	1	0.75	0.75	0	0
95	1	1	1	0.75	1	1	0.75	0.75	0	0
96	1	1	0.75	1	1	1	0.75	0.75	0	0
97	1	1	1	1	1	1	0.75	0.75	0	0
98	1	1	1	0.75	1	0.75	1	0.75	0	0
99	1	1	0.75	1	1	0.75	1	0.75	0	0
100	1	1	1	1	1	0.75	1	0.75	0	0
101	1	1	1	1	0.75	1	1	0.75	0	0
102	1	1	1	0.75	1	1	1	0.75	0	0
103	1	1	0.75	1	1	1	1	0.75	0	0
104	1	1	1	1	1	1	1	0.75	0	0
105	1	1	1	1	0.75	1	0.75	1	0	0
106	1	1	1	0.75	1	1	0.75	1	0	0
107	1	1	0.75	1	1	1	0.75	1	0	0
108	1	1	1	1	1	1	0.75	1	0	0
109	1	1	1	0.75	1	0.75	1	1	0	0
110	1	1	0.75	1	1	0.75	1	1	0	0
111	1	1	1	1	1	0.75	1	1	0	0
112	1	1	1	1	0.75	1	1	1	0	0
113	1	1	1	0.75	1	1	1	1	0	0
114	1	1	0.75	1	1	1	1	1	0	0
115	1	1	1	1	1	1	1	1	0	0
116	1	1	1	1	0.75	1	1	0.75	0.25	0
117	1	1	1	0.75	1	1	1	0.75	0.25	0
118	1	1	0.75	1	1	1	1	0.75	0.25	0
119	1	1	1	1	1	1	1	0.75	0.25	0

FIG. 6

Gradation level to be displayed	Subfield									
	1	2	3	4	5	6	7	8	9	10
	1	2	4	8	12	16	28	44	60	80
120	1	1	1	1	0.75	1	0.75	1	0.25	0
121	1	1	1	0.75	1	1	0.75	1	0.25	0
122	1	1	0.75	1	1	1	0.75	1	0.25	0
123	1	1	1	1	1	1	0.75	1	0.25	0
124	1	1	1	0.75	1	0.75	1	1	0.25	0
125	1	1	0.75	1	1	0.75	1	1	0.25	0
126	1	1	1	1	1	0.75	1	1	0.25	0
127	1	1	1	1	0.75	1	1	1	0.25	0
128	1	1	1	0.75	1	1	1	1	0.25	0
129	1	1	0.75	1	1	1	1	1	0.25	0
130	1	1	1	1	1	1	1	1	0.25	0
131	1	1	1	1	0.75	1	1	0.75	0.5	0
132	1	1	1	0.75	1	1	1	0.75	0.5	0
133	1	1	0.75	1	1	1	1	0.75	0.5	0
134	1	1	1	1	1	1	1	0.75	0.5	0
135	1	1	1	1	0.75	1	0.75	1	0.5	0
136	1	1	1	0.75	1	1	0.75	1	0.5	0
137	1	1	0.75	1	1	1	0.75	1	0.5	0
138	1	1	1	1	1	1	0.75	1	0.5	0
139	1	1	1	0.75	1	0.75	1	1	0.5	0
140	1	1	0.75	1	1	0.75	1	1	0.5	0
141	1	1	1	1	1	0.75	1	1	0.5	0
142	1	1	1	1	0.75	1	1	1	0.5	0
143	1	1	1	0.75	1	1	1	1	0.5	0
144	1	1	0.75	1	1	1	1	1	0.5	0
145	1	1	1	1	1	1	1	1	0.5	0
146	1	1	1	1	0.75	1	1	0.75	0.75	0
147	1	1	1	0.75	1	1	1	0.75	0.75	0
148	1	1	0.75	1	1	1	1	0.75	0.75	0
149	1	1	1	1	1	1	1	0.75	0.75	0

FIG. 7

Gradation level to be displayed	Subfield									
	1	2	3	4	5	6	7	8	9	10
	1	2	4	8	12	16	28	44	60	80
150	1	1	1	1	0.75	1	0.75	1	0.75	0
151	1	1	1	0.75	1	1	0.75	1	0.75	0
152	1	1	0.75	1	1	1	0.75	1	0.75	0
153	1	1	1	1	1	1	0.75	1	0.75	0
154	1	1	1	0.75	1	0.75	1	1	0.75	0
155	1	1	0.75	1	1	0.75	1	1	0.75	0
156	1	1	1	1	1	0.75	1	1	0.75	0
157	1	1	1	1	0.75	1	1	1	0.75	0
158	1	1	1	0.75	1	1	1	1	0.75	0
159	1	1	0.75	1	1	1	1	1	0.75	0
160	1	1	1	1	1	1	1	1	0.75	0
161	1	1	1	1	0.75	1	1	0.75	1	0
162	1	1	1	0.75	1	1	1	0.75	1	0
163	1	1	0.75	1	1	1	1	0.75	1	0
164	1	1	1	1	1	1	1	0.75	1	0
165	1	1	1	1	0.75	1	0.75	1	1	0
166	1	1	1	0.75	1	1	0.75	1	1	0
167	1	1	0.75	1	1	1	0.75	1	1	0
168	1	1	1	1	1	1	0.75	1	1	0
169	1	1	1	0.75	1	0.75	1	1	1	0
170	1	1	0.75	1	1	0.75	1	1	1	0
171	1	1	1	1	1	0.75	1	1	1	0
172	1	1	1	1	0.75	1	1	1	1	0
173	1	1	1	0.75	1	1	1	1	1	0
174	1	1	0.75	1	1	1	1	1	1	0
175	1	1	1	1	1	1	1	1	1	0
176	1	1	1	1	1	0.75	1	1	0.75	0.25
177	1	1	1	1	0.75	1	1	1	0.75	0.25
178	1	1	1	0.75	1	1	1	1	0.75	0.25
179	1	1	0.75	1	1	1	1	1	0.75	0.25

FIG. 8

Gradation level to be displayed	Subfield									
	1	2	3	4	5	6	7	8	9	10
	1	2	4	8	12	16	28	44	60	80
180	1	1	1	1	1	1	1	1	0.75	0.25
181	1	1	1	1	0.75	1	1	0.75	1	0.25
182	1	1	1	0.75	1	1	1	0.75	1	0.25
183	1	1	0.75	1	1	1	1	0.75	1	0.25
184	1	1	1	1	1	1	1	0.75	1	0.25
185	1	1	1	1	0.75	1	0.75	1	1	0.25
186	1	1	1	0.75	1	1	0.75	1	1	0.25
187	1	1	0.75	1	1	1	0.75	1	1	0.25
188	1	1	1	1	1	1	0.75	1	1	0.25
189	1	1	1	0.75	1	0.75	1	1	1	0.25
190	1	1	0.75	1	1	0.75	1	1	1	0.25
191	1	1	1	1	1	0.75	1	1	1	0.25
192	1	1	1	1	0.75	1	1	1	1	0.25
193	1	1	1	0.75	1	1	1	1	1	0.25
194	1	1	0.75	1	1	1	1	1	1	0.25
195	1	1	1	1	1	1	1	1	1	0.25
196	1	1	1	1	1	0.75	1	1	0.75	0.5
197	1	1	1	1	0.75	1	1	1	0.75	0.5
198	1	1	1	0.75	1	1	1	1	0.75	0.5
199	1	1	0.75	1	1	1	1	1	0.75	0.5
200	1	1	1	1	1	1	1	1	0.75	0.5
201	1	1	1	1	0.75	1	1	0.75	1	0.5
202	1	1	1	0.75	1	1	1	0.75	1	0.5
203	1	1	0.75	1	1	1	1	0.75	1	0.5
204	1	1	1	1	1	1	1	0.75	1	0.5
205	1	1	1	1	0.75	1	0.75	1	1	0.5
206	1	1	1	0.75	1	1	0.75	1	1	0.5
207	1	1	0.75	1	1	1	0.75	1	1	0.5
208	1	1	1	1	1	1	0.75	1	1	0.5
209	1	1	1	0.75	1	0.75	1	1	1	0.5

FIG. 9

Gradation level to be displayed	Subfield									
	1	2	3	4	5	6	7	8	9	10
	1	2	4	8	12	16	28	44	60	80
210	1	1	0.75	1	1	0.75	1	1	1	0.5
211	1	1	1	1	1	0.75	1	1	1	0.5
212	1	1	1	1	0.75	1	1	1	1	0.5
213	1	1	1	0.75	1	1	1	1	1	0.5
214	1	1	0.75	1	1	1	1	1	1	0.5
215	1	1	1	1	1	1	1	1	1	0.5
216	1	1	1	1	1	0.75	1	1	0.75	0.75
217	1	1	1	1	0.75	1	1	1	0.75	0.75
218	1	1	1	0.75	1	1	1	1	0.75	0.75
219	1	1	0.75	1	1	1	1	1	0.75	0.75
220	1	1	1	1	1	1	1	1	0.75	0.75
221	1	1	1	1	0.75	1	1	0.75	1	0.75
222	1	1	1	0.75	1	1	1	0.75	1	0.75
223	1	1	0.75	1	1	1	1	0.75	1	0.75
224	1	1	1	1	1	1	1	0.75	1	0.75
225	1	1	1	1	0.75	1	0.75	1	1	0.75
226	1	1	1	0.75	1	1	0.75	1	1	0.75
227	1	1	0.75	1	1	1	0.75	1	1	0.75
228	1	1	1	1	1	1	0.75	1	1	0.75
229	1	1	1	0.75	1	0.75	1	1	1	0.75
230	1	1	0.75	1	1	0.75	1	1	1	0.75
231	1	1	1	1	1	0.75	1	1	1	0.75
232	1	1	1	1	0.75	1	1	1	1	0.75
233	1	1	1	0.75	1	1	1	1	1	0.75
234	1	1	0.75	1	1	1	1	1	1	0.75
235	1	1	1	1	1	1	1	1	1	0.75
236	1	1	1	1	1	0.75	1	1	0.75	1
237	1	1	1	1	0.75	1	1	1	0.75	1
238	1	1	1	0.75	1	1	1	1	0.75	1
239	1	1	0.75	1	1	1	1	1	0.75	1

10/536928

FIG. 10

Gradation level to be displayed	Subfield									
	1	2	3	4	5	6	7	8	9	10
	1	2	4	8	12	16	28	44	60	80
240	1	1	1	1	1	1	1	1	0.75	1
241	1	1	1	1	0.75	1	1	0.75	1	1
242	1	1	1	0.75	1	1	1	0.75	1	1
243	1	1	0.75	1	1	1	1	0.75	1	1
244	1	1	1	1	1	1	1	0.75	1	1
245	1	1	1	1	0.75	1	0.75	1	1	1
246	1	1	1	0.75	1	1	0.75	1	1	1
247	1	1	0.75	1	1	1	0.75	1	1	1
248	1	1	1	1	1	1	0.75	1	1	1
249	1	1	1	0.75	1	0.75	1	1	1	1
250	1	1	0.75	1	1	0.75	1	1	1	1
251	1	1	1	1	1	0.75	1	1	1	1
252	1	1	1	1	0.75	1	1	1	1	1
253	1	1	1	0.75	1	1	1	1	1	1
254	1	1	0.75	1	1	1	1	1	1	1
255	1	1	1	1	1	1	1	1	1	1

FIG. 11A

A1	A2
A3	A4

FIG. 11B

A1	A2	A1	A2	A1	A2	A1	A2	A1	A2
A3	A4	A3	A4	A3	A4	A3	A4	A3	A4
A1	A2	A1	A2	A1	A2	A1	A2	A1	A2
A3	A4	A3	A4	A3	A4	A3	A4	A3	A4
A1	A2	A1	A2	A1	A2	A1	A2	A1	A2
A3	A4	A3	A4	A3	A4	A3	A4	A3	A4
A1	A2	A1	A2	A1	A2	A1	A2	A1	A2
A3	A4	A3	A4	A3	A4	A3	A4	A3	A4

FIG. 12

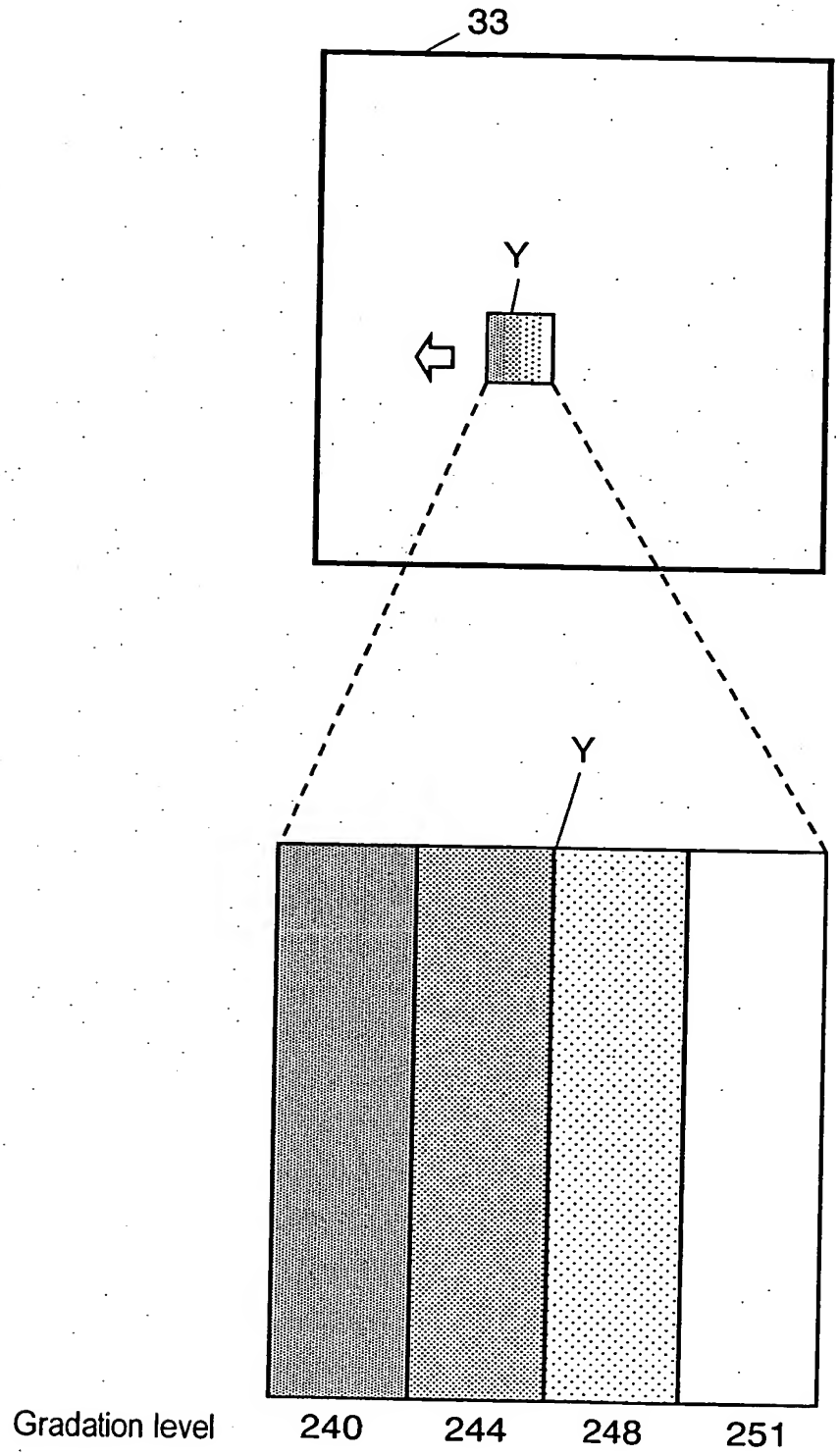


FIG. 13

	Subfield	SF 1	SF 2	SF 3	SF 4	SF 5	SF 6	SF 7	SF 8	SF 9	SF 10
	Weight of gradation level	1	2	4	8	12	16	28	44	60	80
Gradation table for gradation level "240"		1	1	1	1	1	1	1	1	0.75	1
Emission pattern information for gradation level "240"	S1	1	1	1	1	1	1	1	1	1	1
	S2	1	1	1	1	1	1	1	1	1	1
	S3	1	1	1	1	1	1	1	1	1	1
	S4	1	1	1	1	1	1	1	1	0	1
Gradation table for gradation level "244"		1	1	1	1	1	1	1	0.75	1	1
Emission pattern information for gradation level "244"	S1	1	1	1	1	1	1	1	1	1	1
	S2	1	1	1	1	1	1	1	1	1	1
	S3	1	1	1	1	1	1	1	1	1	1
	S4	1	1	1	1	1	1	1	0	1	1
Gradation table for gradation level "248"		1	1	1	1	1	1	0.75	1	1	1
Emission pattern information for gradation level "248"	S1	1	1	1	1	1	1	1	1	1	1
	S2	1	1	1	1	1	1	1	1	1	1
	S3	1	1	1	1	1	1	1	1	1	1
	S4	1	1	1	1	1	1	0	1	1	1
Gradation table for gradation level "251"		1	1	1	1	1	0.75	1	1	1	1
Emission pattern information for gradation level "251"	S1	1	1	1	1	1	1	1	1	1	1
	S2	1	1	1	1	1	1	1	1	1	1
	S3	1	1	1	1	1	1	1	1	1	1
	S4	1	1	1	1	1	0	1	1	1	1

FIG. 14

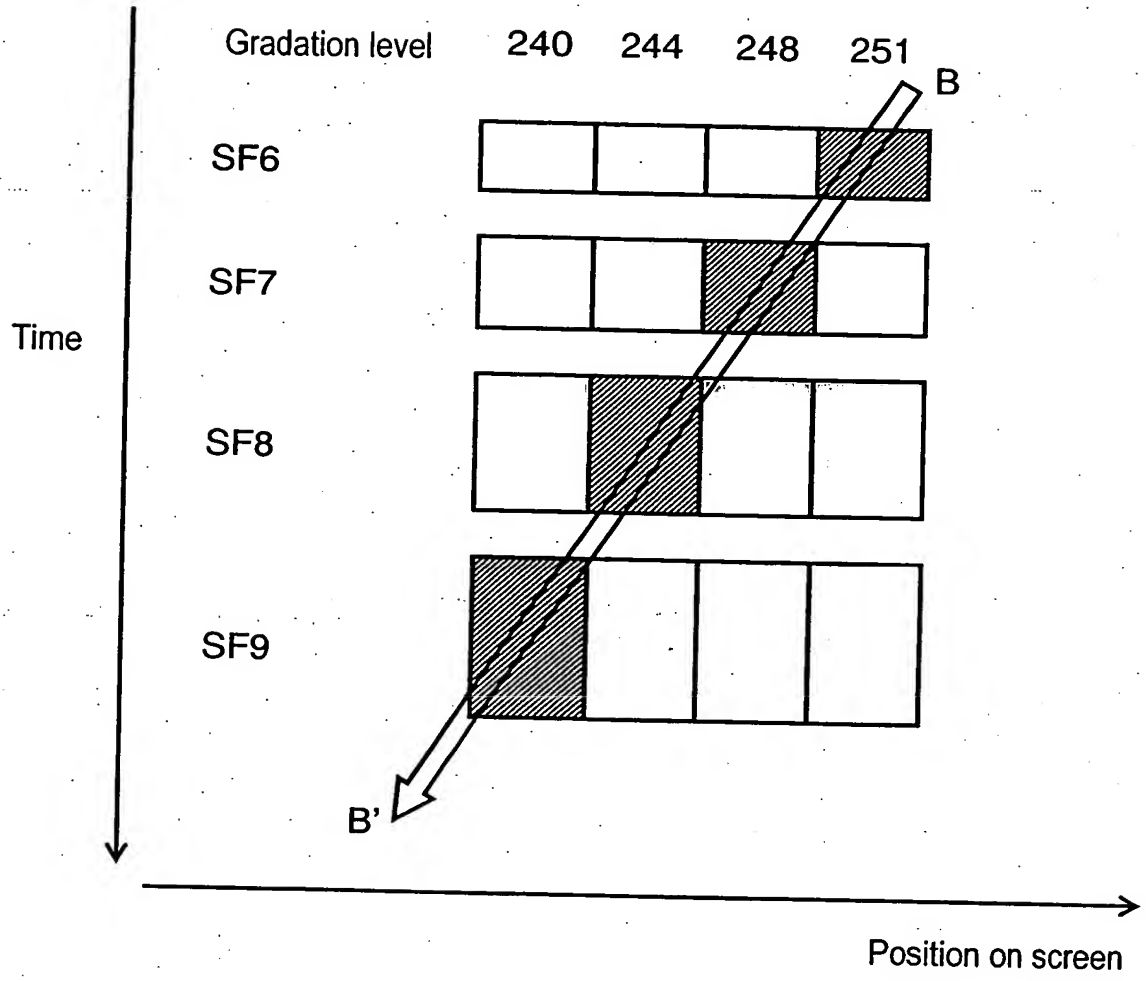
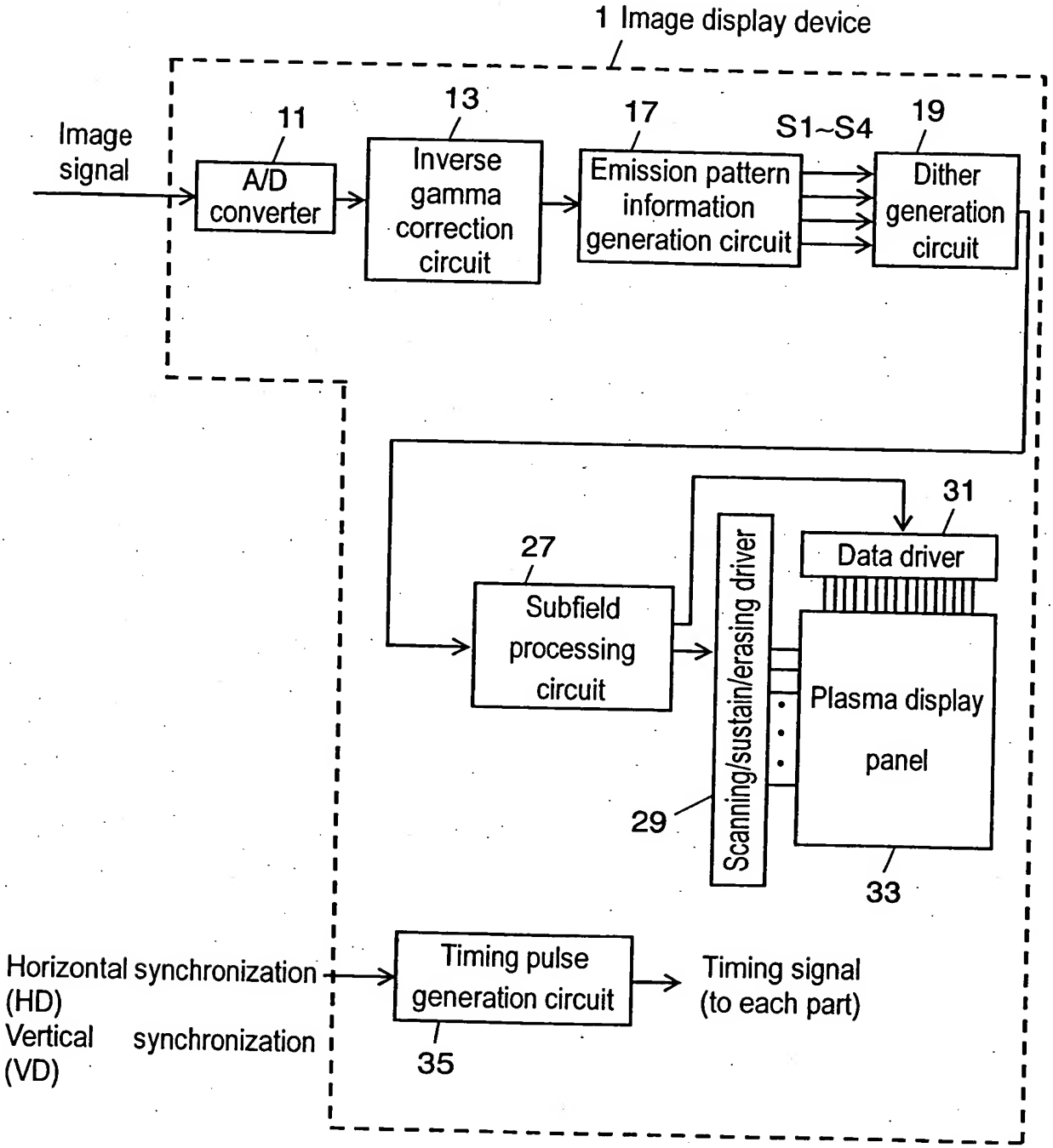

Gradation level
240
244
248
251
B
SF6
SF7
SF8
SF9
Time
B'
Position on screen

FIG. 15


1 Image display device
Image signal
11
A/D converter
13
Inverse gamma correction circuit
17
Emission pattern information generation circuit
S1~S4
19
Dither generation circuit
31
Data driver
27
Subfield processing circuit
Scanning/sustain/erasing driver
Plasma display panel
29
33
Horizontal synchronization (HD)
Vertical synchronization (VD)
Timing pulse generation circuit
35
Timing signal (to each part)

10/536928

FIG. 16

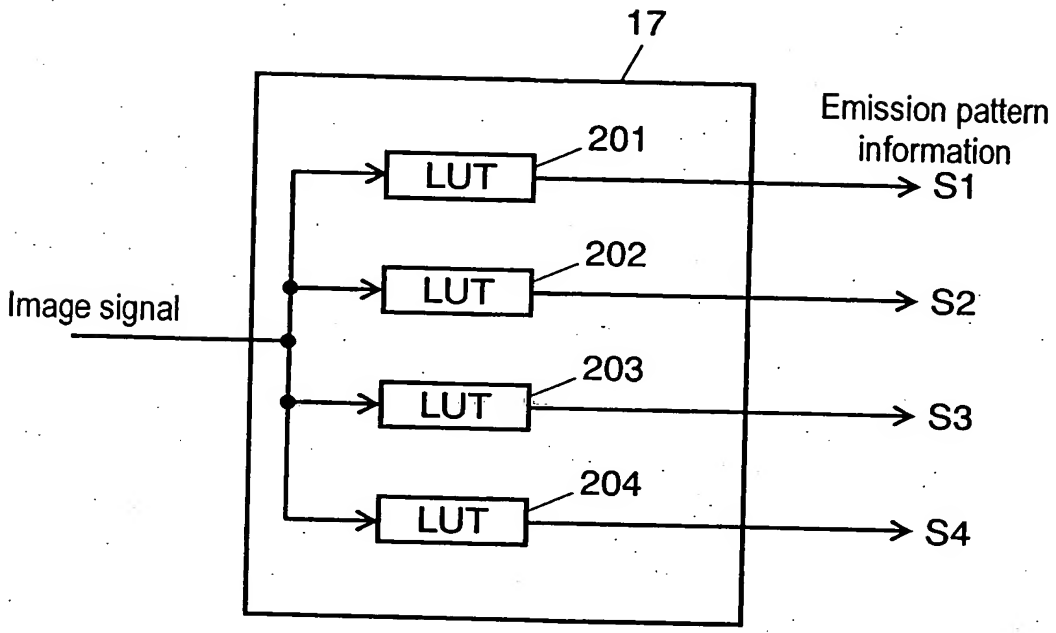


FIG. 17A

S1	S2
S3	S4

FIG. 17B

S1	S2	S1	S2	S1	S2	S1	S2
S3	S4	S3	S4	S3	S4	S3	S4
S1	S2	S1	S2	S1	S2	S1	S2
S3	S4	S3	S4	S3	S4	S3	S4
S1	S2	S1	S2	S1	S2	S1	S2
S3	S4	S3	S4	S3	S4	S3	S4

FIG. 17C

S2	S3
S4	S1

FIG. 17D

S2	S3	S2	S3	S2	S3	S2	S3
S4	S1	S4	S1	S4	S1	S4	S1
S2	S3	S2	S3	S2	S3	S2	S3
S4	S1	S4	S1	S4	S1	S4	S1
S2	S3	S2	S3	S2	S3	S2	S3
S4	S1	S4	S1	S4	S1	S4	S1

FIG. 17E

S3	S4
S1	S2

FIG. 17F

S3	S4	S3	S4	S3	S4	S3	S4
S1	S2	S1	S2	S1	S2	S1	S2
S3	S4	S3	S4	S3	S4	S3	S4
S1	S2	S1	S2	S1	S2	S1	S2
S3	S4	S3	S4	S3	S4	S3	S4
S1	S2	S1	S2	S1	S2	S1	S2

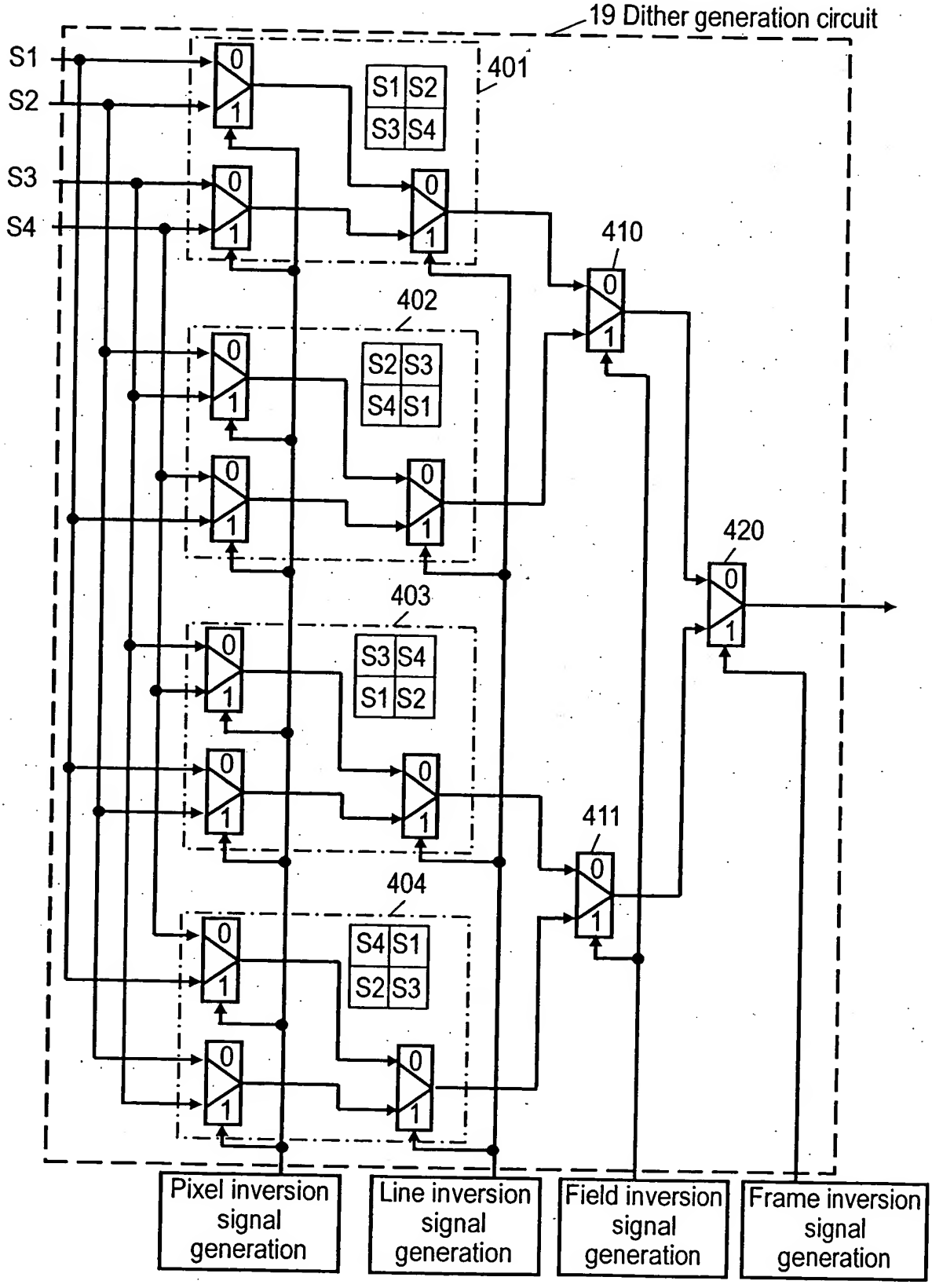
FIG. 17G

S4	S1
S2	S3

FIG. 17H

S4	S1	S4	S1	S4	S1	S4	S1
S2	S3	S2	S3	S2	S3	S2	S3
S4	S1	S4	S1	S4	S1	S4	S1
S2	S3	S2	S3	S2	S3	S2	S3
S4	S1	S4	S1	S4	S1	S4	S1
S2	S3	S2	S3	S2	S3	S2	S3

FIG. 18


19 Dither generation circuit
S1
S2
S3
S4
401
S1 S2
S3 S4
402
S2 S3
S4 S1
403
S3 S4
S1 S2
404
S4 S1
S2 S3
410
411
420
0
1
Pixel inversion signal generation
Line inversion signal generation
Field inversion signal generation
Frame inversion signal generation

10/536928

FIG. 19

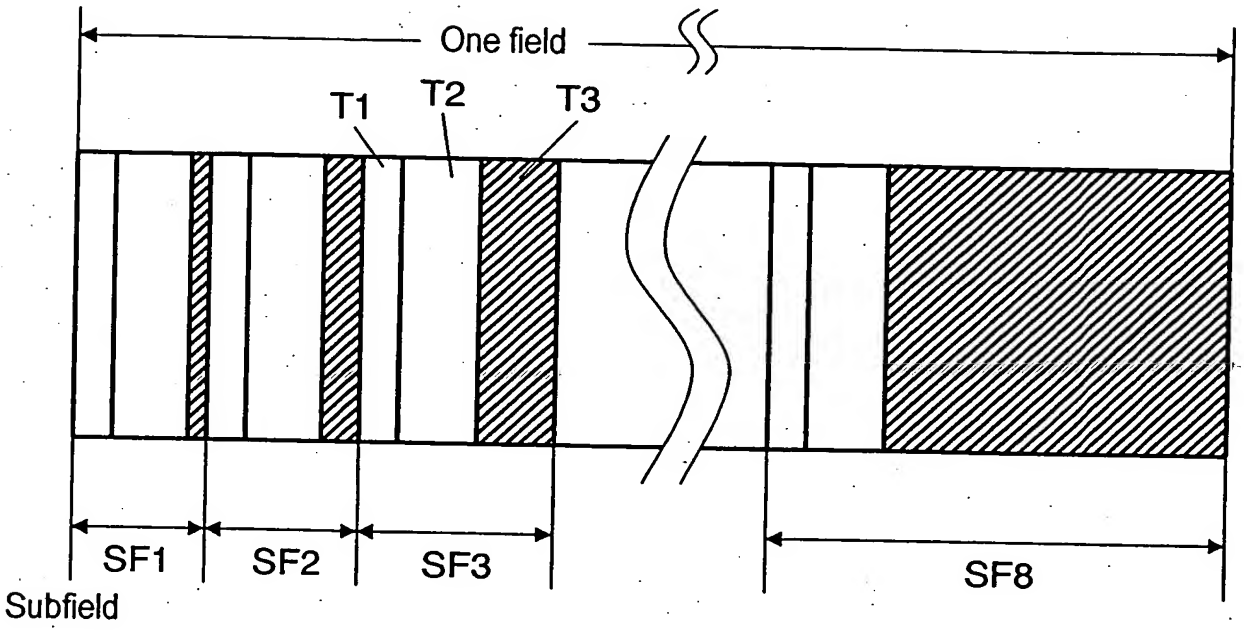


FIG. 20

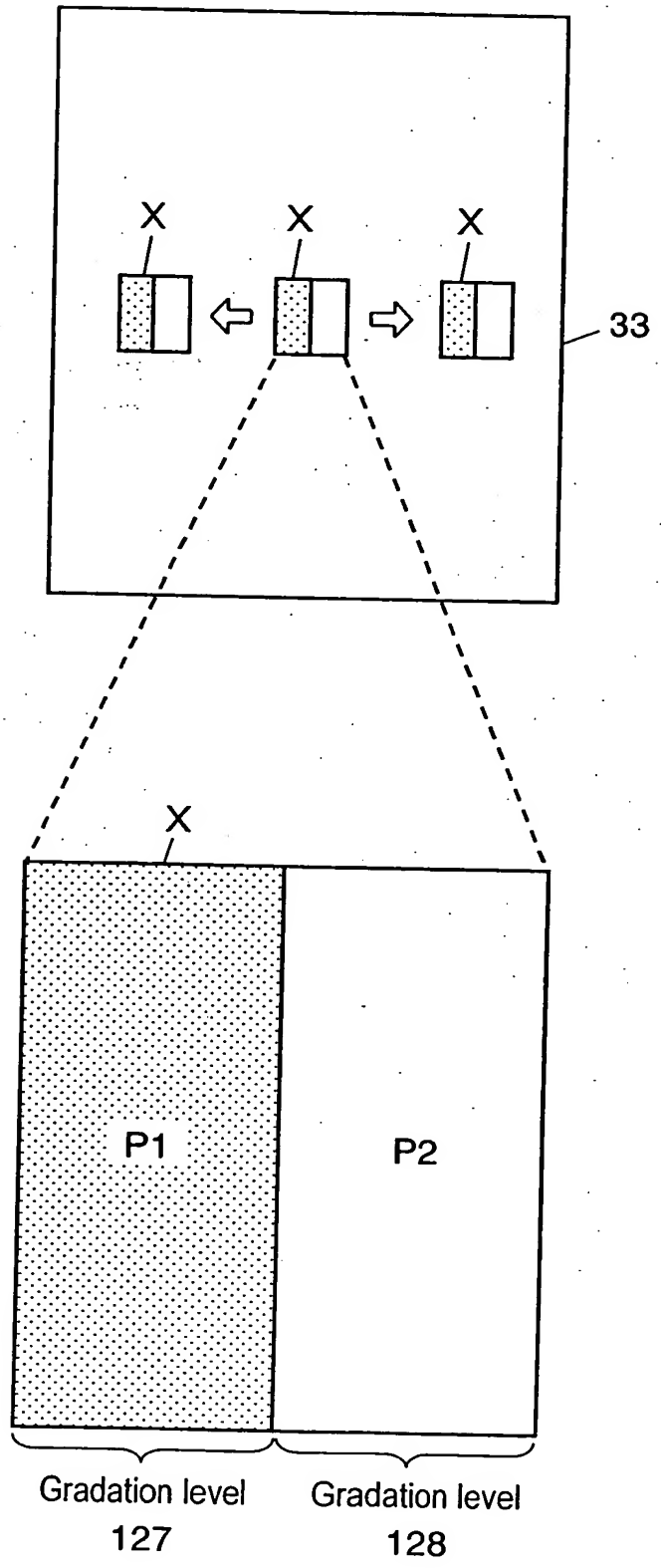
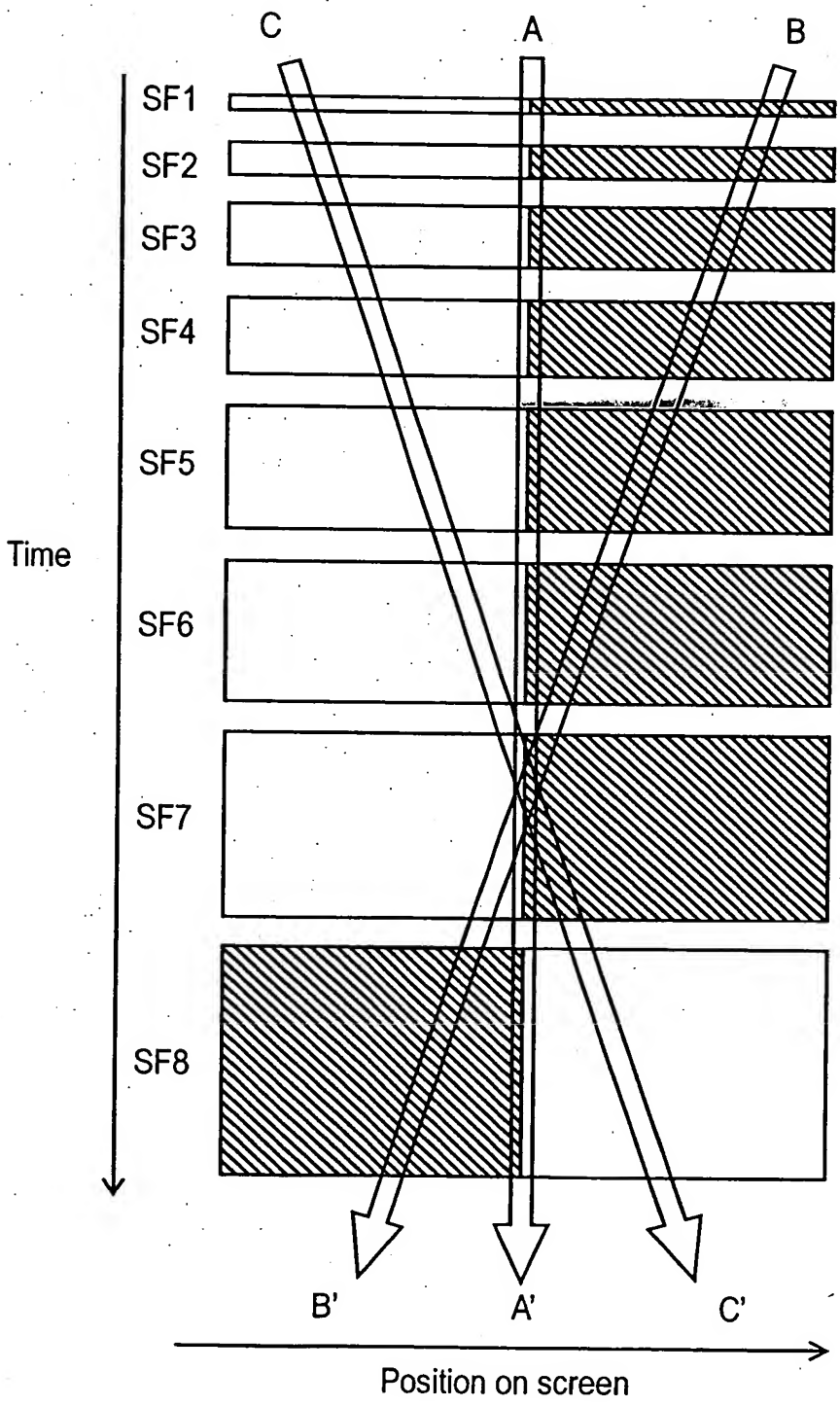


FIG. 21


C
A
B
SF1
SF2
SF3
SF4
SF5
SF6
SF7
SF8
Time
B'
A'
C'
Position on screen